BUTTERFLY (LEPIDOPTERA) RECORDS FROM THE DARWIN REGION, NORTHERN TERRITORY

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Abstract

From 1990 to 2005, 87 of the 111 butterfly species recorded from Darwin in the Northern Territory were reared or collected by the authors from within a 15 km radius of the city centre. Details of localities and months of capture are provided, together with notes on the additional 24 recorded species not collected during the survey.

Introduction

The remoteness of Darwin, in the 'Top End' of the Northern Territory in Australia, is the principal reason why only a small number of butterfly workers visited the region in the past. Early butterfly workers, such as F.P. Dodd in 1908 and 1909, had to endure long sea journeys (Monteith 1991) and, on arrival, were faced with limited access to potential collecting areas. Much of the early collecting was restricted to the local Port Darwin area or from sites such as Rum Jungle, Adelaide River, Brocks Creek and Pine Creek, all sidings along the rail line south from Port Darwin, as road access was limited. In recent years, improvements in road conditions and readily accessible air travel has seen more butterfly workers visiting Darwin yet, to the best of our knowledge, no checklist of butterflies for the Darwin region has ever been published.

For the purposes of this paper, the Darwin 'region' is defined as the area within a 15 km radius of the city centre. Collecting localities are mapped in Figure 1 and listed, together with habitat data, in Table 1. Over the past 15 years we have recorded 87 butterfly species from the Darwin region. These records are listed in Table 2, along with locality and months of capture or emergence. Literature records for a further 24 species from Darwin are reviewed and discussed, all of which require further data to confirm their existence in the Darwin region.

We follow the scientific nomenclature of Common and Waterhouse (1981) in order to maintain consistency with the International Code of Zoological Nomenclature, and have retained historical subspecies names except where a taxonomic revision of a species or subspecies has been published.

Darwin plant habitats

Brock (1993) described three broad categories of habitat, showing a natural progression from sandstone through lowland to coastal plant communities. The Darwin region consists of lowland to coastal plant communities, although on Channel Island a remnant sandstone plant community exists, supporting *Baronia lanceolata* (Rutaceae), a food plant for *Nesolycaena*

urumelia (Tindale) (Edwards 1980, Meyer 1996b). Brock (1993) further subdivided these lowland and coastal habitats into plant communities associated with open forest or woodland, monsoon vine forests, swamps and mangroves. We follow Brock's descriptions for the data provided in Table 1, except that an additional habitat of parkland has been added to cover parks and reserve areas in suburban Darwin, where council plantings of *Pongamia pinnata* (Fabaceae), *Calophyllum inophyllum* (Clusiaceae) and host trees supporting the mistletoe *Decaisnina signata* (Loranthaceae) can be readily found.

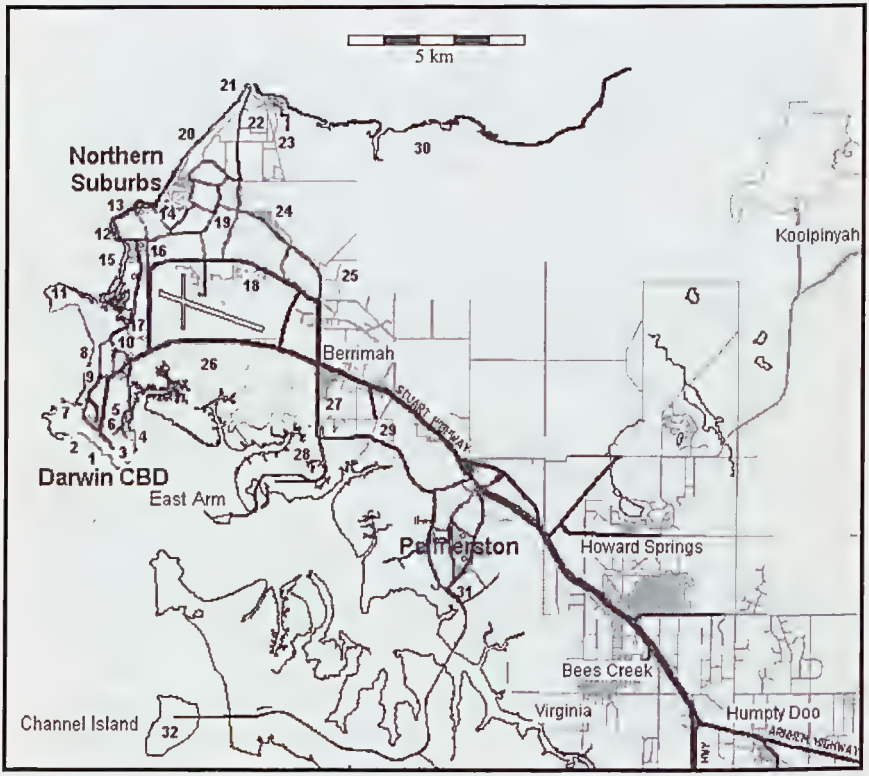

Fig. 1. Map of collecting localities in the Darwin region. (Based on a map taken from *http://uluru.nt.gov.au/prod/bams/inventory/index.cfm?fuseaction=inventory&hreflink=D11*)

Table 1. Key to butterfly locality and habitat data for sites shown in Fig. 1. The letters under the Habitat heading refer to the following plant community keys: Open Woodland (O); Monsoon Vine Forest (V); Swamp (S); Mangroves (M); Parkland (P).

Locality		Habitat	Locality		Habitat
1	Darwin Esplanade	P,V	17	Bagot Reserve	P
2	Doctors Gully	P	18	Darwin Golf Club	P
3	Administrators Hill	P	19	Wagaman	P
4	Francis Bay	P	20	Casuarina Beach	P
5	Stuart Park Jungle	V	21	Lee Point	V
6	Stuart Park Primary School	P	22	Buffalo Creek off Lee Point Road	V,O
7	Myilly Point	P	23	Buffalo Creek Jungle	V,M,S
8	Fannie Bay	P	24	Leanyer	P
9	Darwin High School	P	25	Holmes Jungle	V
10	Parap	P	26	Winnellie	O
11	East Point Reserve	V	27	Berrimah	O
12	Nightcliff Beach	V	28	Bens Hill, Trade Development Zone	O
13	Nightcliff Esplanade	P	29	Thorak Road	O
14	Rapid Creek	P	30	Shoal Bay	V,M,S,O
15	Coconut Grove	P	31	Palmerston	P
16	Velodrome, McMillians Road	P	32	Channel Island via Palmerston	V,M,O

Table 2. Darwin butterflies collected or reared by the authors from 1990-2005.

Species	Localities (see Table 1)	Months collected / emerged J F M A M J J A S O N D
HESPERIIDAE		
Hasora chromus chromus (Cramer)	7,13,14,22,30	x x x x x x
Hasora hurama hurama (Butler)	22	x x
Badamia exclamationis (Fabricius)	11,21,22,27,30	x x x x
Chaetocneme denitza (Hewitson)	31	x x
Neohesperilla xiphiphora (Lower)	28	x x x
Neohesperilla crocea (Miskin)	27,29	x x
Neohesperilla senta (Miskin)	27	x x
Hesperilla sexguttata Herrich-Schäffer	22,23,30	x x x x
Taractrocera anisomorpha (Lower)	29	x
Taractrocera dolon diomedes Waterhouse	1,3	x x
Taractrocera ina Waterhouse	1,2,5,6,22,29,31	x x x
Ocybadistes flavovittatus vesta (Waterhouse)	31	x
Ocybadistes walkeri olivia Waterhouse	1,5,22,29,31	x x x x x x
Ocybadistes hypomeloma vaga (Waterhouse)	5,27	x x x x
Suniana lascivia larrakia Couchman	1,3,5,6,29	x x x x x x

Species	Localities (see Table 1)	Months collected / emerged J F M A M J J A S O N D
Suniana sunias sauda Waterhouse	1,5,27	x x x
Telicota colon argeus (Plötz)	5,21,29,31	x x x
Telicota augias argilus Waterhouse	5,11,20,21,22, 29,30,32	x x x
Cephrenes trichopepla (Lower)	17,22,26,28,30, 31	x x x x x x x x x
Cephrenes augiades (C. Felder) ssp.	5,11	x x x x x
Parnara amalia (Semper)	11,22,23,27,28	x x x x
Borbo impar lavinia (Waterhouse)	5,6,22,31	x x x x x x x
Pelopidas lyelli lyelli (Rothschild)	5,6,11,21,22,27	x x x x x x x
PAPILIONIDAE		
Graphium eurypylus nyctimus (Waterhouse & Lyell)	1,5,11,20,21,22, 32	x x x x x
Papilio fuscus canopus Westwood	5,11,20,21,22, 23,30,31,32	x x x x x x
Papilio demoleus sthenelus W.S. Macleay	4,11,20,30,31	x x x
Cressida cressida cassandra (Waterhouse & Lyell)	11,21,26,27,28, 30,31,32	x x x x
PIERIDAE		
Catopsilia pomona pomona (Fabricius)	7,11,14,20,21, 22,30,31,32	x x x x x x
Catopsilia scylla etesia (Hewitson)	1,11,31	x x x
Eurema hecabe hecabe (Linnaeus)	1,10,11,28,30, 31,32	x x x x x
Eurema alitha (C. & R. Felder)	11,28,32	x x x x
Eurema laeta sana (Butler)	21,30	x x x
Elodina walkeri Butler	1,11,20,21,22, 30,32	x x x x x x x
Delias argenthona fragalactea (Butler)	6,8,9,10,13,14, 15,16,28,31	x x x x
Delias mysis aestiva Butler	5,23,27	x x x x
Belenois java teutonia (Fabricius)	30	x x
Cepora perimale scyllara (W.S. Macleay)	11,21,22,30	x x x
Appias paulina ega (Boisduval)	11,21,22,30	x x x x x x
NYMPHALIDAE		
Danaus petilia (Stoll)	11,21,22,23,30, 31,32	x x x x
Danaus affinis affinis (Fabricius)	11,21,22,23,30, 31,32	x x x x
Tirumala hamata hamata (W.S. Macleay)	6,30	x x x
Euploea core corinna (W.S. Macleay)	11,20,22,23,30, 31,32	x x x x x
Euploea sylvester pelor Doubleday	11,21,30,32	x x x x

Species	Localities (see Table 1)	Months collected / emerged J F M A M J J A S O N D
Euploea darchia darchia (W.S. Macleay)	5,11,21,22,23, 30	x x x
Melanitis leda bankia (Fabricius)	1,5,6	x x x
Mycalesis sirius sirius (Fabricius)	1	x
Mycalesis perseus perseus (Fabricius)	11,22,23	x x x
Hypocysta adiante antirius Butler	5,19,29	x x x
Ypthima arctous arctous (Fabricius)	29,30	x x
Polyura sempronius sempronius (Fabricius)	1,27,28	x x
Hypolimnas bolina nerina (Fabricius)	1,11,20,21,22, 27,30,31,32	x x x x x x
Hypolimnas misippus (Linnaeus)	20,21,27,30	x x x x
Hypolimnas alimena darwinensis Waterhouse & Lyell1	1,11,22,30	x x x x
Junonia hedonia zelima (Fabricius)	11,30	x x x x
Junonia villida calybe (Godart)	11,30,31	x x
Junonia orithya albicincta Butler	11,30,31	x x x x x
Cethosia penthesilea paksha Fruhstorfer	11,30,32	x x x
Phalanta phalantha araca (Waterhouse & Lyell)	11,21,22,27,31	x x x x x
Acraea andromacha andromacha (Fabricius)	11,28,32	x x x
Libythea geoffroy genia Waterhouse	31	x
LYCAENIDAE		
Liphyra brassolis major Rothschild	6,18,27,31	x x x x
Hypochrysops ignitus erythrinus (Waterhouse & Lyell)	27,28	x x x
Hypochrysops apelles apelles (Fabricius)	23,32	x x x x x x x x x
Arhopala centaurus asopus Waterhouse & Lyell	28	x x x x
Arhopala micale amydon Waterhouse	8,10,11,13,14	x x x x x
Ogyris zosine typhon Waterhouse & Lyell	9,16	x x x x x x x
Ogyris amaryllis hewitsoni (Waterhouse)	12,32	x x x x x x x x x x x x
Hypolycaena phorbas ingura Tindale	1,20,21,28,30, 32	x x x x x x x x
Deudorix smilis dalyensis (Le Souëf & Tindale)	11,21,22,23	x x x x
Anthene seltuttus affinis (Waterhouse & R.E. Turner)	1,10,13	x x x x
Anthene lycaenoides godeffroyi (Semper)	1,5,11,20,22,23, 32	x x x x x
Candalides gilberti Waterhouse	1,6,8,9,10,13, 14,16,31	x x x x x x x x x x x x x
Candalides erinus erinus (Fabricius)	21,28,29,30	x x x
Nesolycaena urumelia (Tindale)	32	x x x x x x

Species	Localities (see Table 1)	Months collected / emerged J F M A M J J A S O N D
Prosotas dubiosa dubiosa (Semper)	11,30,32	x x x x x
Catopyrops florinda estrella (Waterhouse & Lyell)	1,11	x x x
Theclinisthes miskini miskini (T.P. Lucas)	11,18,26,29,30	x x x x x
Theclinisthes sulpitius (Miskin)	24,30	x x x x x
Jamides phaseli (Mathew)	13	x x x
Catochrysops panormus platissa (Herrich-Schäffer)	18,30	x x
Lampides boeticus (Linnaeus)	27	x x
Zizeeria karsandra (Moore)	22,30	x x x x x
Zizina labradus labradus (Godart)	28	x x
Famegana alsulus alsulus (Herrich-Schäffer)	21,30	x x x
Zizula hylax attenuata (T.P. Lucas)	5	x x x x
Euchrysops cnejus cnidus Waterhouse & Lyell	1,11	x x x
Freyeria putli putli (Kollar)	27	x x

Additional literature records

HESPERIIDAE

Proeidosa polysema (Lower)

Lower (1911) first recorded this species (as *Anisynta polysema*) from Port Darwin, based on a single male collected by F.P. Dodd in February 1909. Dodd and his son Walter were based in Port Darwin for 10 months from August 1908, exploring the East Point rainforest north to Rapid Creek (Monteith 1991). Waterhouse and Lyell (1914) recorded the holotype female from Petford near Chillagoe, Queensland, taken in February, and two males from Port Darwin. They incorrectly listed January, February and March as the months of capture for the two Port Darwin males. Waterhouse (1933) recorded an allotype male from Port Darwin, collected in February 1909, in the South Australian Museum, Adelaide, a paratype male from Port Darwin, collected in February 1909, in the Australian Museum, Sydney and other males from Port Darwin, collected in January and March, plus a female collected in April. Subsequent authors (Common and Waterhouse 1972, 1981, Dunn and Dunn 1991, Braby 2000) have continued to refer to the Port Darwin records in the distribution of this butterfly in the Northern Territory.

The larvae of this species feed on *Triodia* spp. (Poaceae), generally found growing on rocky sandstone outcrops and slopes. *Triodia* records for the Darwin region are sketchy but there have been records from Casuarina Beach (Darwin Herbarium). It is not known whether the *Triodia* was of the coastal dunes variety or those found in the more arid regions. We have collected this butterfly from the sandstone escarpment country behind a radio repeater

station, 15 km south of the Adelaide River township, along the old Stuart Highway. Further data are required to determine whether it exists in the Darwin region. We believe it is unlikely that it will be encountered there in the future, due to a lack of suitable habitat.

Taractrocera ilia ilia Waterhouse

Waterhouse (1932a) described this species (as *Taractrocera udraka ilia*) from four males and two females from the King River, one male from Port Darwin in the South Australian Museum and a female from Melville Island. Waterhouse (1932a) noted that the Port Darwin specimen was collected in November and bore a label in Lower's handwriting '*T. flavogattata* Plötz male'. Waterhouse (1932b), Common and Waterhouse (1972, 1981), Dunn and Dunn (1991) and Braby (2000) all listed Darwin in the distribution of this butterfly. We are not aware of any records of this butterfly from Darwin other than the original male referred to by Waterhouse (1932a). Most records for this butterfly appear to be from the King River eastwards into Arnhem Land and we have found it to be common locally at Little Nourlangie Rock, Kakadu National Park. Further data are required to determine whether it exists in the Darwin region. We believe it is unlikely that it will be encountered there in the future, due to a lack of suitable habitat.

Oriens augustulus (Herrich-Schäffer)

Evans (1949) recorded a single male, labelled Port Darwin, in The Natural History Museum (BMNH), London. This butterfly is native to Fiji. Common and Waterhouse (1981) questioned the natural occurrence of the butterfly in Australia and Braby (2000) noted that it might have been introduced accidentally, as there are no recent records to support its establishment in Australia. Edwards *et al.* (2001) stated 'it was probably not permanently established in Australia'. Further data are required to determine whether it exists in the Darwin region. We believe it is unlikely that it will be encountered there in the future and is probably a locality label error.

Telicota ancilla baudina Evans

Lower (1911) recorded this species from Sydney to Port Darwin. Evans (1949) included three males and one female from Port Darwin in his description of the subspecies. Braby (2000) noted that a female collected by Dunn in 1979, from Lameroo Beach (Dunn and Dunn 1991), is actually *Telicota augias* (Linnaeus). We are unaware of any further records of this butterfly from Darwin. In July 2004, we found three larvae of what we believe to be this butterfly feeding on *Imperata* sp. (Poaceae), a known food plant, at Robin Falls on the old highway south of the Adelaide River township. Unfortunately, we were unsuccessful in rearing them to adults. The larvae closely resembled those *T. ancilla ancilla* (Herrich-Schäffer) from the east coast. Further data are required to confirm its existence in the Darwin region.

Telicota mesoptis mesoptis Lower

Peters (1969) recorded a single male, labelled Port Darwin, NT, 24.xi.1902, G. Turner, in the Australian Museum, Sydney. This is the only known record of this butterfly from the Northern Territory and Braby (2000) noted that further surveys were required to determine whether it exists in the Northern Territory. We believe it is unlikely that it will be encountered in the Darwin region in the future and is probably a locality label error.

Borbo cinnara (Wallace)

Angel (1951) first recorded collecting specimens of this butterfly at Adelaide River, Darwin and Berry Springs, where it was supposedly more plentiful than *Borbo impar lavinia*, during a collecting trip that he and F.E. Parsons undertook during April and May 1948. Couchman (1951) provided comments on the specimens collected by Angel and Parsons during this trip and noted that a single male had been collected at Darwin on 7 May 1948. Dunn and Dunn (1991) incorrectly referred the Darwin record to Couchman, assigning only the Adelaide River records to Angel. Braby (2000) assigned all records to Angel and noted that very few records were known. Braby (2000) suggested that the butterfly may have been overlooked because of its superficial resemblance to the more common *Pelopidas* Walker species. Further data are required to confirm its existence in the Darwin region.

Pseudoborbo bevani (Moore)

Waterhouse (1932a) first recorded this species from Australia (as *Baoris bevani*) based on three undated specimens in the South Australian Museum, labelled Port Darwin. These three specimens are the only records from Australia (Braby 2000). Waterhouse (1932a, 1937) believed the species may have been introduced, as its larvae feed on rice. Experimental rice crops have been grown in the Darwin region from as early as 1879 and, more recently, Territory Rice Ltd operated on the Adelaide River flood plains from 1952 to 1960, when operations were abandoned (Powell 2000). Systematic searching over the years by the present authors around the old Adelaide River rice project areas at Tortilla Flats, Harrison Dam and Fogg Dam failed to turn up any specimens. Further data are required to determine whether it exists in the Darwin region.

Pelopidas agna dingo Evans

Angel (1951) recorded specimens from Darwin and Berry Springs during the first week of May 1948 and noted that it was only seen occasionally. Couchman (1951) provided comments on the specimens collected by Angel and Parsons during this trip and noted that the single male collected by them on 7 May 1948 was the first to be recorded from Darwin. Dunn and Dunn (1991) recorded specimens in the Museum of Victoria, Melbourne and the Australian National Insect Collection (ANIC), Canberra; however, they noted that most records were based on females. A female collected by E.D. Edwards from Holmes Jungle on 15 May 1973, in the ANIC, would appear to

be this species since it agrees with the description provided by Braby (2000) on how to separate females of *P. lyelli lyelli* from those of *P. agna dingo*. We have numerous females of *Pelopidas* spp. and many are difficult to separate. Further data are required to confirm its existence in the Darwin region.

PAPILIONIDAE

Papilio aegeus aegeus Donovan

Dunn and Dunn (1991) first recorded this species from Darwin based on a specimen in the J.T. St Leger Moss collection and they were followed by Braby (2000). The Darwin record is probably the result of the nursery trade, as it would appear that the butterfly has not established itself in Darwin despite the abundance of citrus host plants. Further data are required to determine whether it still exists in the Darwin region.

PIERIDAE

Catopsila pyranthe crokera (W.S. Macleay)

Braby (2000) attributed the Darwin record for this species to T.L. Fenner; however, this record is in error (T.L. Fenner pers. comm.). Adults may be encountered in Darwin in the future during irregular seasonal migrations but little is known of the butterfly's behaviour in the northern areas of its distribution (Braby 2000). Further data are required to determine whether it currently exists in the Darwin region.

Eurema brigitta australis (Wallace)

Waterhouse and Lyell (1914) first recorded this species (as *Terias libythea zoraide* Felder) from Darwin, with specimens collected in February and March (presumed to be F.P. Dodd specimens). Dunn and Dunn (1991) noted no other records and Braby (2000) also made reference to Darwin within the butterfly's distribution. Further data are required to confirm its existence in the Darwin region.

Eurema smilax smilax (Donovan)

Waterhouse and Lyell (1914) first recorded this species (as *Terias smilax*) from Darwin, with specimens collected in March. Subsequent authors (Common and Waterhouse 1972, 1981, Dunn and Dunn 1991, Braby 2000) all detailed an Australia-wide distribution, although none specifically referred to Darwin. There is a single male in the ANIC, Canberra, from Darwin collected on 5 May 1948, originally from the F.E. Parsons collection. The butterfly is known to be an opportunistic migrant (Braby 2000) and it might be encountered in the Darwin region in the future; however, further data are required to determine whether it currently exists there.

Eurema herla (W.S. Macleay)

Peters (1969) first recorded this species from Port Darwin from four males and two females dated 16.ii.-19.iii.1909, plus three undated males all collected by F.P. Dodd. These specimens are in the Australian Museum,

Sydney. We have collected this butterfly from Marrakai Road, approximately 70 km south of Darwin. Further data are required to confirm its existence in the Darwin region.

Appias albina albina (Boisduval)

Waterhouse and Lyell (1914) first recorded this species from Darwin in March. Subsequent authors (Waterhouse 1932b, Common and Waterhouse 1972, 1981, Dunn and Dunn 1991, Braby 2000) all included Darwin within the butterfly's distribution. There is a single female in the ANIC, Canberra, collected in January 1977 by Gary Fitt. Recently, a single male was collected from East Point Reserve on 3 March 2000 (C.G. Miller pers. comm.), flying with *Appias paulina ega* and *Cepora perimale scyllara*. Braby (2000) suggested that populations of this butterfly may be resident in Darwin but further data are required to determine whether or not this is the case.

NYMPHALIDAE

Danaus genutia alexis (Waterhouse & Lyell)

Waterhouse and Lyell (1914) first recorded this species from Derby, Western Australia and Darwin (as *Danaida plexippus alexis*) from four males and three females. The Darwin specimens were collected in January and February (presumed to be F.P. Dodd specimens). Subsequent authors (Waterhouse 1932b, Common and Waterhouse 1972, 1981, Dunn and Dunn 1991, Braby 2000) also list Darwin in the distribution of this butterfly. We have collected it from Fog Bay on the Cox Peninsula and from Oolloo Crossing on the Daly River, where adults have been observed using the river as a flight corridor and pausing to feed at flowers along the river bank (Meyer 1995). Further data are required to confirm its existence in the Darwin region.

Hypolimnas anomala albula (Wallace)

Waterhouse and Lyell (1914) first recorded this species (as *H. antilope albula*) from Darwin from a single male collected in March. Subsequent authors (Waterhouse 1932b, Common and Waterhouse 1972, 1981, Dunn and Dunn 1991, Braby 2000) also referred to this record. Dunn and Dunn (1991) recorded three specimens from the Arnhem phytogeographic region in March. Braby (2000) noted that that the original specimen was taken in 1909, probably by F.P. Dodd, although Braby (2000) did not mention the collector. Braby (2000) also recorded another male collected by C.G. Miller at East Point Reserve on 10 February 1987, flying around a track through the vine forest (C.G. Miller pers. comm.). Further data are required to confirm its existence within the Darwin region.

Yoma sabina parva (Butler)

Waterhouse and Lyell (1914) first recorded this species from Darwin in March, probably collected by F.P. Dodd in 1909. We are unaware of any further records of this butterfly from Darwin and further data are required to confirm its existence in the Darwin region.

LYCAENIDAE

Ogyris iphis doddi (Waterhouse & Lyell)

Waterhouse and Lyell (1914) first recorded this species from Darwin from two males and two females, collected in September and November, presumably by F.P. Dodd in 1908. Dunn and Dunn (1991) recorded seven specimens from the Arnhem phytogeographic region taken in September, November and February (presumed also to be the original F.P. Dodd specimens). Braby (2000) noted that the butterfly had not been collected from Darwin since 1909, although an adult resembling this species was observed hill-topping in March 1992 on Bens Hill behind the Trade Development Zone (S.S. Brown pers. comm.). The last known record from the Northern Territory is a single female, taken at light (E.D. Edwards pers. comm.) during Operation Raleigh, from Pularumpi, Melville Island (11°4'S, 130°25'E) on 30 June 1986. The specimen is in the Northern Territory Museum collection and Braby (2000) attributed this record to P. Homer [actually P. Horner]. Despite extensive searching, we have not located any breeding colonies. Further data are required to confirm its existence in the Darwin region.

Deudorix diovis Hewitson

Dunn and Dunn (1991) first recorded this butterfly from Darwin from a single undated female collected by W. Graham. Braby (2000) also referred to the Dunn and Dunn (1991) record. The specimen was a female collected on the Darwin esplanade, flying in the company of *Hypolycaena phorbas ingura* on 25 May 1983 (W. Graham pers. comm.). It is probable that this butterfly occurs naturally in Darwin but has been overlooked in the past, as one of the known food plants, *Cupaniopsis anarcardioides* (Sapindaceae), grows prevalently along the esplanade. Further data are required to confirm its existence in the Darwin region.

Nacaduba kurava felsina Waterhouse & Lyell

Waterhouse and Lyell (1914) first recorded this species from Port Darwin (as *Nacaduba perusia felsina*) from three males and five females, collected in January, February, September and November (presumed to be the original F.P. Dodd specimens). Dunn and Dunn (1991) also included Darwin in the butterfly's records, based on specimens in the Museum of Victoria. We are unaware of any recent records from Darwin; however, it is quite possible that suitable habitat supporting the food plant *Embelia curvinervia* (Myrsinaceae) (Meyer 1996a, 1996b) still exists. We have collected and reared this butterfly from Marrakai Road, approximately 70 km south of Darwin, from Oolloo Crossing on the Daly River and from adjacent to the Adelaide River bridge on the Daly River Road. Further data are required to confirm its existence in the Darwin region.

Nacaduba biocellata biocellata (C. & R. Felder)

Common and Waterhouse (1981) first recorded this species from Darwin, attributing the record to K.L. Dunn. Dunn and Dunn (1991) and Braby (2000)

did not specifically list Darwin but gave an Australia-wide distribution for the butterfly. Further data are required to confirm its existence in the Darwin region.

Theclinesthes onycha capricornia Sibatani & Grund

Waterhouse and Lyell (1914) first recorded this species from Darwin (as *Theclinesthes onycha onycha* Hewitson) from specimens collected in August, September and October. Sibatani and Grund (1978) determined that in fact only one male from Port Darwin, collected by F.P. Dodd, belonged to this species, with the remaining records belonging to *T. miskini miskini* (T.P. Lucas). Common and Waterhouse (1981), Dunn and Dunn (1991) and Braby (2000) all referred to this single record. Larvae of this butterfly feed on the soft new growth of *Cycas* sp. (Cycadaceae) and *Macrozamia* sp. (Zamiaceae) (Braby 2000). *Cycas armstrongii* and *Cycas calcicola* both occur in the Darwin region (Brock 1993) and may prove to be the food plant near Darwin. Further data are required to confirm its existence in the Darwin region.

Sahulana scintillata (T.P. Lucas)

Waterhouse and Lyell (1914) first recorded this species from Darwin (as *Theclinesthes scintillata* Lucas) from specimens collected in September. Dunn and Dunn (1991) also recorded it from Darwin in September, based on two specimens in the Museum of Victoria, Melbourne (assumed to be original F.P. Dodd specimens), and noted that the underside markings of the females from Darwin are more contrasting than in females from Queensland or New South Wales. On 16 June 2003, four specimens were collected flying around the tops of trees adjacent to mangroves at Buffalo Creek (12.352S, 130.035E) (S.J. Johnson pers. comm.). It has also been collected at *Melaleuca* sp. (Myrtaceae) blossom in reasonable numbers from the Hunting Reserve, 10 km east of the Adelaide River bridge, and from adjacent to the Mary River bridge, both on the Arnhem Highway, in June 1994 by R. Stoodley, T. Woodger and J. O'Dell (R. Stoodley pers. comm.). Further data are required to confirm its existence in the Darwin region.

Everes lacturnus australis Couchman

Nowhere in the literature is this butterfly specifically recorded from Darwin, although the distribution maps contained in Common and Waterhouse (1972, 1981) and Braby (2000) encompass Darwin. We are not aware of any current or previous records of this butterfly from the Darwin region. We have collected it from Marrakai Road, approximately 70 km south of Darwin. Further data are required to confirm its existence in the Darwin region.

Summary

One hundred and eleven butterfly species have been recorded from the Darwin region to date, representing approximately 25% of Australia's known butterfly species. The present authors have recorded 87 of the 111 recorded species from the Darwin region since 1990. We believe it is unlikely that

Proeidosa polysema and *Taractrocera ilia* will be encountered in the Darwin region in the future, due to loss of suitable habitat. We also believe that the records of *Oriens augustulus* and *Telicota mesoptis mesoptis* are probably the result of incorrect labelling by their collectors. Further data are required to confirm the existence of the remaining 20 species recorded previously in the literature. In time, some of these records may also prove to be labelling errors, as some of the early butterfly workers, including F.P. Dodd, have been known to err with their label data. It is hoped that the data presented in this paper will help stimulate future butterfly workers in determining the existence or otherwise of the remaining 20 species in the Darwin region.

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